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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,479	11/27/2001	Paul Francis	005657.P001	2715
32294	7590	02/10/2006	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P. 14TH FLOOR 8000 TOWERS CRESCENT TYSONS CORNER, VA 22182			QURESHI, AFSAR M	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/996,479

Applicant(s)

FRANCIS ET AL.

Examiner

Afsar M. Qureshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-54 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 43-46 is/are allowed.  
6) ☒ Claim(s) 1-42 and 47-54 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

1. This action is responsive to Amendments/REMARKS received on 11/18/2005. All claims (1-54) were presented in original.

***Response to Arguments***

2. Applicant's arguments filed 11/18/2005 have been fully considered but they are not persuasive.

Applicant argued that the cited art, Ahmad (US 6,160,804) fails to anticipate and/or obviate the claimed invention alone or in combination with Brothers (US 6,822,955). More specifically, Applicant argued (page 5) that Ahmed does not disclose:

- (i) "transferring the IP flow to an original access router, the original access router maintaining a host table associated with the mobile node" (claims 1, 47, 50);
- (ii) "forwarding IP flow to an original access router" (claims 18, 31); and
- (iii) "notifying the attached access router of an address of the original access router (claim 39).

The Examiner believes that the above limitations are met by the cited art as discussed in the following rejection. Ahmed discloses a mobile node 102 and home agent and foreign agents maintaining host tables associated with the mobile node (figure 1). Home agent also maintains a table associated with mobile nodes, foreign agent routes data traffic.

For the claims 10-17, 25, 27, 36, 38 and 54, the Examiner has interpreted the words of the claims and variations in the alternative structure in its broadest terms as can be interpreted by those of ordinary skill in the art (MPEP 2111.01).

3. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

4. Claims 1-9,18-24,26,31-35,37,39-42,47-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Ahmed et al. (US 6,160,804).

Claims 1,18, 23,24,31-35,37,47-53. Ahmad discloses a mobile IP route optimization process, wherein a mobile IP network consists of mobile node 102, attached to the access node and the original access node (see figure 1), to service IP flow. Ahmed further discloses home agents and foreign agents, home agent receives data packets and tunnels them to the care-of-address. Home agent also maintains a table associated with all the mobile nodes. A foreign agent routes data traffic and provides the care-of-address and maintains a list of visiting mobile nodes (see figure 1, col. 2, lines 52 through col. 3, lines 1-8). Each network node 104, attached to mobile end user 102, can also function as router providing wireless access to the mobile terminal (see col. 6, lines 58-61). Ahmed further discloses a table stored in home location register (HLR) and a second table, Table II, is a hash table in a node (or access router) that matches mobile's host name and the subnetwork layer address. The

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subnetwork layer server module receives an IP frame (claims 32-35) (see col. 13, lines 18-65)

Claims 2,3,19,20. Ahmed discloses (figure 4) that each mobile station is assigned a table, containing information such as mobile's host name, mobile's ID.

Claims 4-6. Ahmed discloses methods steps for identifying the new router and the mobile node notifying the network node (router) of the change in the new mobile's address (see col. 19, lines 29-47). Ahmed further discloses routing via tunneling.

Assigning an ID, entering ID into a table and passing down the packet through tunneling, utilizing tunneling routing (see col. 3, lines 65-67,col. 15, lines 16-26, also, col. 18, lines 44-58).

Claims 7-9,21,22. Ahmed discloses that as the mobile moves to another network node (inherently, terminate the IP flow) it notifies HLR in that network node (router) which then update its hash table (See col. 13, lines 39-56 and col. 14, lines 6-56).

Claim 26. As discussed in the rejection of claim 1 above, Ahmed discloses home agent as router that authenticates a mobile node and administers the static IP home address and care-of-address (see col. 2, lines 48-65).

Claims 39-42. All the limitations already addressed in the rejection of claim 1 above, with central node being internode network 108 that includes a plurality of network nodes.

5. Claims 10-17,25,27-30,36,38 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmed, as above, in view of Brothers et al. (US 6,822,955).

Claims 10-17,25,27,36,38 and 54 Ahmed discloses that RLP server attached to network node 104 (fig. 3A) routes the IP packet through source routing or tunneling that could be transparent or non transparent to end user (see col. 9, lines 17-60, and col. 18, lines 44-58). However, Ahmed does not expressly disclose wherein the server and/or access router is running network address translation (NAT).

Brothers et al. ("Brothers" hereinafter), in the same field of endeavor, disclose a proxy server which is fully or partly transparent, running NAT, wherein NAT is well known process in which traffic is received/transmitted with an arbitrary primary address modified to present the correct IP address to a network router (see col. 4, lines 4-15, figure 19). Therefore it would have been obvious to one of skill in the relevant art, to utilize same server as disclosed by Brothers in the subnetwork area of Ahmed where router and server can be configured to run NAT and forwarding IP flow to corresponding nodes in order to provide transparent IP mobility services in network environment as is desired by Ahmed in yielding an efficient, scalable and flexible communication system.

Claims 28-30. Ahmed discloses network node (router) monitors packets passing through the node (home agent IP address and mobile node IP address) (see cil. 14, lines 34-37).

As discussed above Brothers discloses proxy address resolution protocol within a proxy server allowing the proxy server to provide full IP client functionality (see Abstract).

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M. Qureshi whose telephone number is (571) 272 3178. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272 3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**AFSAR QURESHI**  
**PRIMARY EXAMINER**

2/6/2006